

**ECS Project**  
**Engineering Technical Directive**

**No. 99-012**

**Subject: Anonymous FTP setup UPDATE**

**14-December-99**

The following directive is issued to all DAACS and labs.

- Fix:** Setup an anonymous FTP account and directory to allow users to obtain data via FTP from ECS.
- Issue:** Anonymous FTP must be setup and is required since most users pulling data from ECS will not have an ECS account.
- Update:** If anonymous ftp has already been installed on this host, execute this procedure and modify the entries specified here and update the existing entries.
- Comments:** Only one anonymous ftp server can be configured on one host. Since this is a "mode aware" application (i.e. uses OPS, TS1, TS2) only one mode at a time can be setup for anonymous ftp. This directive assumes OPS mode is used, but if required a host configuration may be changed by replacing all instances of OPS with TS1 or TS2.
- Restrictions:** DOS/Windows 3.1 workstations will not be able to download most ECS files because they are limited to 8 character by 3 character filenames. Windows 95/98 and Macintosh users *may* have difficulty with MODIS filenames since those files have historically used imbedded colons (":") in filenames, which these OSs do not recognize. If this occurs, the only option at this time is for these filenames to be changed manually by an operator.
- Testing:** From an Internet-based system, download a test file from the XXacg01 host using the username ftp or anonymous.

**Implementation:** The following steps are designed to help set up an anonymous FTP account:

1. Logon to the XXacg01 host as root (or su to root)
2. Create the anonymous FTP account in the passwd file:  
ftp:\*:997:999:anonymous FTP account:/data4/OPS/apc/PullDisk/user:/dev/null

**IMPORTANT NOTE:** Use the correct physical name of the directory -- it may not be data4 or it may not be PullDisk. The directory must match the configuration in Pull Monitor.

3. Create an anonymous FTP directory (if not already created):  
# mkdir /data4/OPS/apc/PullDisk
4. Set global access permission for the anonymous FTP directory tree:  
# chmod -R 771 /data4/OPS/apc/PullDisk  
# chown cmops.users /data4/OPS/apc/PullDisk
5. Change directory to the ftp home directory and create the subdirectories used for FTP access (if not already created):  
# cd /data4/OPS/apc/PullDisk  
# mkdir user  
# cd user  
# mkdir etc bin
6. Copy the ls/executable to the bin directory and change permissions:  
# cp /bin/ls /data4/OPS/apc/PullDisk/user/bin  
# chmod 111 /data4/OPS/apc/PullDisk/user/bin/ls

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7. For the user directory, set the owner to the user "ftp," and group to "cmops," and global read and access permissions to allow only owner and group to write but the world not to be able to read its contents :

```
# chown ftp.cmops /data4/OPS/apc/PullDisk/user
# chmod 171 /data4/OPS/apc/PullDisk/user
```

Anybody logging in as anonymous can now retrieve files in the user directory, but they must be told the name of the file beforehand because they cannot list the directory contents.

8. Edit the ftp passwd and group files as follows. The /data4/OPS/apc/PullDisk/user/etc/passwd file should contain:

```
root:*:0:0:super-user:/:/dev/null
sys:*:4:0:system activity owner:/usr/adm:/dev/null
ftp:*:997:999:anonymous FTP account:/data4/OPS/apc/PullDisk/user:/dev/null
```

The /data4/OPS/apc/PullDisk/user/etc/group file should contain:

```
other::995
guest:*:998
anonymous:*:999
```

9. Set restrictive permissions on the ftp passwd and group files:

```
# chmod 111 /data4/OPS/apc/PullDisk/user/etc/*
```

10. Add device and library files for anonymous FTP as follows:

```
# cd /data4/OPS/apc/PullDisk/user
# mkdir dev
# /sbin/mknod /data4/OPS/apc/PullDisk/user/dev/zero c 37 0
# mkdir lib
# cp /lib/libc.so.1 lib
# cp /lib/rld lib
# chmod 111 dev lib
```

11. Add this entry to the file /etc/aliases to cause mail sent to the user anonymous to go to the postmaster:

```
Anonymous: postmaster
```

12. To make the above alias take effect, run the command:

```
# newaliases
```

13. Verify that FTP logging to record successful and unsuccessful FTP logins and actions on files and directories performed during a FTP session by editing the /etc/inetd.conf file. Verify that the following line is present (and if not present enter it):

```
ftp stream tcp nowait root /etc/wrappers/tcpd ftpd -lll
```

14. After editing /etc/inetd.conf, restart inetd with the following command:

```
# /etc/killall -HUP inetd
```

Note: If you do a "ps -ef | grep inetd", it will NOT show an updated time stamp.

15. Create the file /etc/issue with the following text:

Use "ftp" or "anonymous" as your user name and your email address as the password.


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**Reference CCR: 99-1196**

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